were sensitive to pilocarpin and epinephrin and 3 cases were sensitive only to pilocarpin. The 5 fatal cases in this series all showed sympathicotonia, and the authors suggest that this fact may serve as a basis for establishing prognosis in typhoid fever. They consider the prognosis bad in cases of bradycardia insensitive to atropin and pilocarpin and sensitive to epinephrin. These authors found youth more sensitive than age to atropin, but no relation between age and sensitivity to pilocarpin or epinephrin.

OBSTETRICS

UNDER THE CHARGE OF

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Prophylaxis of Infection in Nurseries.—BARBIER (*Arch. de méd. des enfants*) describes the precautions taken in the Hérold Hospital, in Paris, to prevent contagion among infants. The nurses wear a veil like those worn in the operating room, and only well-trained and experienced nurses are placed on duty in these wards. Under the heads of the infants are put sterile folded cloths which greatly lessen the infections developing upon the head. One nurse has charge of the food for all of the infants, written directions being given in each case. She collects the directions and prepares the food in a room apart from the ward. The bottles are kept in wire baskets, each of which is marked with the number of the bed, and the bottles are prepared at 11 A.M. for the twenty-four hours. Infants unable to take cows' milk have done well on ass's milk when breast feeding could not be obtained. From 1909 to 1913 the mortality among 1238 infants was 35 per cent., and 29.5 per cent. of the 442 deaths were from typical tuberculosis confirmed by autopsy. There were 311 marasmic infants, among whom there were 141 deaths, and of these 62 per cent. were from septicemia, only 15.1 per cent. actually dying from marasmus. Of the infants having septicemia 70 per cent. were under six months, and in many of these hospital contagion was responsible. It is essential that each child have a separate crib and that infants already infected should be kept entirely away from others and their nurses also. As the infants grew better it was desirable to take them away from the hospital at the earliest possible moment. There were 46 cases of typhoid, none of which terminated fatally, and this is ascribed in large part to the fact that they were given no milk.

Labor Obstructed by a Contraction Ring.—WHITE (*British Medical Journal*) reported, in 1912, 3 cases in which labor was obstructed by a contraction ring. His attention was called to this condition by the examination of a uterus removed during labor by hysterectomy. This specimen showed that the contraction formed from a depression in the child's body and that the part below the ring was

not pathologically thin. Thus the ring had no connection with the ring of Bandel, commonly called a retraction ring. The case now reported is that of a primipara in labor with whom a doctor had attempted to hasten delivery by manual dilatation of the cervix and the use of the high forceps and had failed. She had been in labor forty-eight hours. On admission, the head was in the cavity of the pelvis, the child was dead and in left occipitoposterior position. It was decided to wait for uterine contractions and perform craniotomy. When the fundus occasionally contracted, the head was perforated and with great difficulty extracted from the vulva with the cranioclast but the shoulders could not be delivered, even after cleidotomy and the fundus of the uterus became tetanic. As the patient passed into shock, a 7-pound weight was tied to the cranioclast and the patient was stimulated by transfusion and external heat for between one and two hours. Delivery was then easily effected by bringing the arms down over the head and making light traction. The fundus was flaccid and the placenta temporarily retained; this was removed manually, and an intra-uterine douch was given. The mother recovered, but there was considerable sloughing of the vagina, resulting in the formation of a fistula between the vagina and urethra and ureter. His fifth case was a multipara admitted in labor with a dead child and an offensive discharge from the uterus. There was a very tight contraction ring around the thigh of the child which did not yield to pressure. The mother being infected, the entire pregnant uterus was excised. She made an uneventful recovery.

Hydatidiform Mole and Chorio-epithelioma.—CATURANI (*Am. Jour. Obst.*, April, 1917) reviews the literature of this subject and reproduces illustrations of these two conditions. He believes that our inability to determine the future course of a hydatid mole depends upon the fact that it is very difficult to secure evidence of the actual invasion of the uterus. Could we observe that, we could form a much better idea as to the outcome of the case. When a mole is present in the uterus, the wall of the womb is softened and friable, and the tissues cannot be completely removed by a curette; probably the most reliable and efficient method consists in vaginal hysterotomy, and when this operation is done, one cannot only secure the remnants of the mole, but also a small section of uterine tissue to study the question of the invasion of the wall of the womb. When an hydatid mole attacks the tissues of the vagina this could not be considered a benign process. It is different from the deportation of villi in normal pregnancy. In hydatid mole the tissues grow abnormally and rapidly develop a tumor. Considerable time may elapse between the first appearance of metastasis in the vagina and its development to a serious nature, but if such metastasis has followed an hydatid mole, there is no question regarding its malignancy. If in a suspicious case the core of the villus is present, this does not exclude the possibility of malignant change, especially if the cells of Langhans are present in large quantity. These cells are almost pathognomonic of malignancy. Should a chorionic tumor be recognized, it should be considered as malignant without hesitation. In examining the tissues of a mole, if the essentials of the primitive chorion are present and growth is taking place, the

tumor is suspicious. To positively estimate its malignancy one must study the mole in relation with the surrounding maternal structures. Where the tissues show a tendency to penetrate the uterine wall, it must be considered a chorio-epithelioma. Marchand's classification of two types, syncytioma and chorio-epithelioma, is supported by statistics from clinical observation, and agrees with the anatomical constitution of the chorionic tumors. Seven cases have come under the observation of the writer and 6 of these are reported in brief: The first occurred in a woman, aged twenty-six years, following a normal confinement at term, and vaginal tumor developing twenty-eight days after confinement. In this tumor syncytial and Langhans's elements were both abundantly present. This patient died eight months after confinement. The second case followed an hydatid mole and in this case the syncytium predominated. This patient had been ill for many months and had been curetted three times before coming under observation. The tumor had almost entirely destroyed the posterior wall of the uterus which was about to rupture. Marked saprophytic infection was present. The uterus was removed, and eight years after the operation the patient is living and well. The third patient, aged forty-three years, had hemorrhage for fifteen months and had been curetted several times. On examining the uterus after its removal a wide tumor was implanted in the posterior wall toward the fundus. This was composed of syncytial elements. The patient died five months afterward with recurrence in the pelvis. The fourth case followed an hydatid mole at the fourth month with very rapid development. When seen, the patient was in such a condition that nothing could be done. The uterus was secured by autopsy and was studded with typical syncytial growths. The fifth case was a multipara who had severe hemorrhage for which she was curetted. She was thought to have had an incomplete abortion. Hemorrhage returned and curetting was repeated, and scrapings examined, showing transitional chorio-epithelioma. The uterus was removed for repeated hemorrhage. On examining the uterus, Langhans's cells and syncytial elements were in a state of necrosis. There was no trace of villi. The ultimate fate of this patient is not stated. The sixth case followed a normal confinement and was one of chorio-epithelioma. The uterus was curetted and a small vaginovulvar tumor was removed. The patient refused radical operation, and died six months after the confinement.

Shall the Curette Be Used in Cases of Infection?—POLAK (*Am. Jour. Obst.*, March, 1917) states that in treating cases of infection following abortion one must consider the period of gestation, the condition of the cervix, the amount of hemorrhage, and the presence or absence of sepsis. In clean cases after securing free dilatation of the cervix, complete evacuation of the uterus by the curette, forceps, and finger, with a strict, septic, surgical technic and the firm retraction of the uterus, leaves the woman in the best possible condition. If, however, she has had gonorrheal endocervicitis at the time of abortion she is practically infected. The majority of abortions, however, as seen in practice are not clean, because they have been examined or tamponed without surgical cleanliness of the vulva. So frequently does infection

follow manipulation under these circumstances that the custom has recently obtained of letting the uterus entirely alone in all suspected cases. The results were that patients did much better than formerly. In following up these cases it has been found that these patients had menorrhagia, sometimes very severely; for several periods after their discharge from the hospital. Recently cases have been divided into those in which abortion was begun and completed in the hospital under the most careful asepsis, and those which began outside of hospital and had been examined or packed one or more times without proper preparation of the external parts. These later cases are considered infected. Unless hemorrhage is severe these patients are treated in the Fowler position, with an ice-bag placed over the uterus. If there is considerable bleeding a sterile vaginal gauze tampon is firmly packed against the cervix. After this method of treatment the patients had prolonged menstruation and increased quantity of blood lost. In view of these facts, when a case is admitted bleeding, a very thorough antiseptic preparation of the external parts and vagina is made, the interior of the uterus is explored, and a culture made. If this is negative the uterine content is carefully evacuated after giving, by hypodermic injection, an ampoule of pituitrin. The emptying of the uterus is done by the curette or placental forceps when pregnancy is eight weeks or under, and with the placental forceps and fingers when it is past that time. Following the emptying of the uterine contents the interior of the uterus is iodized by packing with gauze soaked with tincture of iodin, and this pack is allowed to remain for twenty minutes. The routine culture of the interior of the uterus has shown that more than 61 per cent. have a pure culture of either staphylococcus or streptococcus when such culture has been made from forty-eight hours to four days after the supposed abortion. This explains why incomplete abortion, formerly subjected to routine curetting, has subsequently developed exudate in the perimetrium. When culture showed the presence of bacteria in the uterus the expectant plan of treatment was followed until a culture from the interior of the uterus showed no organism to be present, and then the cavity of the womb was curetted and carefully iodized. This was done not only to lessen blood loss at subsequent periods but to avoid leaving adherent tissue that might favor the development of chorio-epithelioma.

Hematocolpos in a Woman Aged Seventy-four.—GELLHORN, (*Surg., Gynec. and Obst.*, January, 1917) reports the case of a woman, aged seventy-four years, who had menstruated normally until thirty-five years previously. Then severe pain and obstruction to the discharge of urine lead to an examination. A large, fluctuating tumor was found filling the pelvis, extending upward almost to the umbilicus. The atresia of the senile period had entirely closed the vagina. Section was performed under spinal anesthesia and an enormous distention of the uterus and tubes with blood was found. The entire uterus was then removed and the tumor, which was connected with the vagina by loose connective tissue only, was removed unopened. The patient died from embolism on the fifteenth day. The cause of the bleeding was adeno-sarcoma of the body of the uterus.